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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,823	03/13/2002	James T. Grutta	DP-305782	2707
7590	06/04/2003			
Edmund P. Anderson, Esq. Delphi Technologies, Inc. M/C 480.414.420 1450 West Long Lake, 4th Floor Troy, MI 48098			EXAMINER VARGOT, MATHIEU D	
		ART UNIT 1732	PAPER NUMBER	
DATE MAILED: 06/04/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/099,823	BATTEN et al.
	Examiner M. VAR6 of	Group Art Unit 1732

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- Responsive to communication(s) filed on \_\_\_\_\_
- This action is **FINAL**.
- Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

- Claim(s) 1 - 34 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 1 - 34 is/are rejected.
- Claim(s) \_\_\_\_\_ is/are objected to.
- Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

**Application Papers**

- The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119 (a)-(d)**

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- All  Some\*  None of the:
  - Certified copies of the priority documents have been received.
  - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

**Attachment(s)**

- Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_  Interview Summary, PTO-413
- Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152
- Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

**Office Action Summary**

Art Unit: 1732

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. Claims 1-3, 8, 9, 11-16, 21, 22 and 24-26 are rejected under 35 U.S.C. 102(b) as being

anticipated by Maimets (see Figure 17 and column 19, line 41 through column 20, line 38).

The applied reference discloses a process for making a structural member and the member (ie, sleeve 1) wherein a preform of a composite material with resistance wires (47) in a thermoplastic polymer matrix (44) is provided, an electrical current is flowed through the wires (ie, across the preform) to melt the matrix and the composite sleeve is cooled under compression--see Figures 14a-14d for the latter. The sleeve is applied to repair an existing conduit. Given the disclosure at column 20, lines 11-18, it is noted that the resistance wires would also take the form of a non-woven fabric mat embedded in the thermoplastic, and such would have inherently functioned as a reinforcement material for the plastic sleeve. The instant method of heating a composite material is also clearly taught in the method of making the structural member. Product claims 13 and 26 are submitted to have been met in the product of Maimets, although the applied reference does not explicitly teach the exact current and voltage set forth in these claims used to make the product. However, Maimets does teach melting the thermoplastic and this is sufficient to anticipate the structural limitations of the product set forth in instant claims 13 and 26.

Art Unit: 1732

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7, 10, 18-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maimets.

Maimets is applied for reasons of record as set forth in paragraph 1, *supra*, the reference essentially lacking an explicit disclosure of the exact current and voltage used to melt the thermoplastic matrix. However, these aspects are submitted to have been clearly within the skill level of the art. One of ordinary skill would have been able to determine how much voltage/current to apply to arrive at the desired degree of melting of the sleeve so that it would function to repair the conduit.

3. Claims 4, 17 and 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maimets, either alone, or further in view of Gould.

The primary reference discloses the basic claimed process and apparatus as set forth in paragraphs 1 and 2, *supra*, Maimets essentially lacking a teaching of regulating or controlling the current and voltage. It is first off submitted that such a control is well known in the heating art and that one of ordinary skill would have found such a modification to the process and apparatus of Maimets as obvious in order to obtain the desired degree of melting of the thermoplastic sleeve for repair purposes. At any rate, Gould (col. 1, lines 38-55) teaches that fibers made electrically conductive

Art Unit: 1732

using conductive carbon, when employed as a heating element as the conductive mat of the primary reference would have been, tend to produce an unstable "runaway" temperature rise as electrical current is supplied and this is remedied by using a controller. It would have been obvious to one of ordinary skill in the art at the time of invention to have regulated the voltage/current of Maimets as taught by Gould to eliminate the "runaway" temperature rise during heating.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Vargot whose telephone number is 703 308-2621.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

M. Vargot

May 30, 2003

*M. Vargot*  
MATHIEU D. VARGOT  
PRIMARY EXAMINER  
GROUP 1300

*5/30/03*